

REMARKS

Claims 1-39 are currently pending in the application. By this amendment, claims 5 and 15 are amended for the Examiner's consideration. The above amendments do not add new matter to the application and are fully supported by the specification. For example, support for the amendments is provided at Figures 4 and 5, and the description thereof, in addition to the original claims. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Allowable Subject Matter

Applicants appreciate the indication that claim 19 contains allowable subject matter. Applicants have amended claim 19 into independent format. Accordingly, claim 19 should be indicated as being allowed. Applicants further submit that all of the claims are allowable for the reasons set forth below.

35 U.S.C. §112 Rejection

Claim 5 was rejected under 35 U.S.C. §112, 2nd paragraph. Claim 5 has been amended to provide proper antecedent basis to the claimed subject matter. Accordingly, Applicants respectfully request that the rejection over claim 5 be withdrawn.

35 U.S.C. §102 Rejection

Claims 1-7, 11, 12 and 32-39 were rejected under 35 U.S.C. §102(b) for being anticipated by USPN 5,280,694 to Malow. This rejection is respectfully traversed.

In order to reject a claim under 35 U.S.C. § 102, a single prior art reference must contain each and every limitation of the claim, either expressly or under the doctrine of inherency. *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Circ), cert. denied, 488 U.S. 892 (1988). To “contain” the limitation the reference must explicitly describe the limitation, or describe an operation inherently requiring the limitation, completely enough to place limitation “in the possession of the public.” *In re Epstein*, 32 F.3d 1559, 31 USPQd 1817 (Fed. Cir. 1994). Applicants submit that the use of Malow does not meet this criteria.

Independent Claim 1

Claim 1 recites, in part,

.... at least one corresponding diverting mechanism including:
a feeding area;
a diverting arm swingable between an open position and a closed position, in the open position, the diverting arm allowing product to enter the feeding area; and

an ejection station proximate to the feeding area, the ejection station injecting the product into the container after the product enters the feeding area via movement of the diverting arm.

Contrary to the claimed invention, in Malow, small goods are conducted out of the transporting path by means of a separating module 2 composed of laterally pivotal conveyor belts. Although it is not clear whether the separating module may be pivotable between a rightmost position and a leftmost position, it is very clear that these belts are not a diverting arm swingable between an open position and a closed position. In fact, it is obvious to one of skill in the art that regardless of the movement of the separating module 2, the two opposing belts of the separating module 2 always remain in the same relative position to one another. Hence, the separating module 2 does not include a diverting arm swingable between an open position and a closed position. (See Figures 1 and 2.)

Independent Claim 32

Claim 32 recites a method of stacking the product in a vertical orientation. The method includes, in part,

... angling the container...
injecting product into the container in a vertically stacked orientation;
indexing the container a predetermined distance;
continuing injecting product into the container in a vertically stacked orientation; ...; and

transporting the container away in the substantially horizontal plane away from the injection area.

Contrary to the claimed invention, in Malow, the container is angled, but it is not indexed. Also, the product is oriented in a horizontal position in the container, not in a vertical orientation. That is, when the container is placed on the belt, for transport, all of the product is stacked in a horizontal manner. This is opposite to the claimed invention, in which the product is injected into the container so that it is in a vertically stacked orientation (in the container). As to the lack of an indexing step, there is no disclosure whatsoever that the container is indexed in a predetermined distance. In fact, due to the orientation of the product being stacked therein, there is no need to even consider an indexing of the container. That is, since the product are being slid into the container in a horizontal stacking orientation, indexing is not required. The only movement of the container is to rotate the container onto the conveyor, which is not an indexing as contemplated by the claimed invention.

Independent Claim 36

Claim 36 recites, in part

... dropping product in a substantially horizontal orientation into the container;
covering the container to ensure product is not ejected therefrom during the dropping step

Applicants first submit that the Examiner does not appear to have considered these features in the rejection. (See, pages 3 and 4 of the office action). In fact, it appears that the Examiner, in rejecting claims 36-39, is considering features which are not even presently recited in these claims. For example, none of these rejected claims recite angling the container to a predetermined angle of more than 0 degrees.

In any event, Malow does not show many of the features of the claimed invention. For example, Malow does not show covering the container to ensure that product is not ejected therefrom. In Malow, the product is guided into the container, but there is no cover on the container, or associated with the container. Additionally, as discussed above, the product in the container is not oriented in the vertical position when the container is rotated to the horizontal plane; instead, the product in the Malow disclosure are stacked in the container in the horizontal position.

Dependent Claims

Applicants first note that these claims depend from allowable base claims and are thus allowable for the reasons stated above. Also, these claims are distinguishable over Malow, on their own merits. By way of specific example, Malow does not show:

1. the product is mail objects (Claim 3);
2. a continuous belt driven system proximate to the at least one corresponding diverting mechanism for transporting the product between a first and a second of the at least one corresponding diverting mechanisms (Claim 4);
3. a lifting device for lifting the at least one corresponding pivoting mechanism between the loading position and the initial/final position (Claim 6);
4. at least one corresponding pivoting mechanism stacks the product in a vertical orientation within the container (Claim 11);
5. a control for controlling the movement of the diverting arm and injection of the product into the container from the ejection station (Claim 12);
6. the step of determining a position of the container (Claim 33);
7. the step of controlling a flow of the product to an ejection area which injects the product into the container (Claim 34);

8. the step of determining which of several injection areas to transport the product thereto for injection into the container (Claim 35);
9. the step of determining an amount of product in the container (Claim 38); and/or
10. the feeding area is formed substantially by an upper and lower mechanism (claim 39).

In fact, Malow would not even have any requirement for such features. Malow shows only a single induction system and hence would not require any determination as to which ejection area should be used to induct product therein. Also, since there is only one induction area, Malow would also not require a continuous belt driven system proximate to the at least one corresponding diverting mechanism for transporting the product between a first and a second of the at least one corresponding diverting mechanisms. Malow also would not require corresponding pivoting mechanism to stack the product in a vertical orientation within the container, since the product is stacked in a horizontal position.

In conclusion, for the above reasons, Applicants submit that the claimed invention is distinguishable over Malow and that the rejection of claims 1-7, 11, 12 and 32-39 be withdrawn.

35 U.S.C. §103 Rejections

Claims 1, 8, 26, 30 and 31 were rejected under 35 U.S.C. §103(a) over USPN 6,328,302 to Hendrickson in view of USPN 5,778,640 to Prakken.

Claims 9 and 10 were rejected under 35 U.S.C. §103(a) over Malow in view of USPN 5,906,468 to Vander Syde et al. Claim 13 was rejected under 35 U.S.C. §103(a) over Malow in view of USPN 6,438,928 to Huang et al. Claims 14-18 and 21-25 were rejected under 35 U.S.C. §103(a) over Malow in view of USPN 4,997,176 to Hain. Claim 20 was rejected under 35 U.S.C. §103(a) over Malow in view of Hain in view of Vander Syde et al. Claims 26 and 27 were rejected under 35 U.S.C. §103(a) over USPN 5,135,352 to Scata et al. in view of Prakken. Claim 28 was rejected under 35 U.S.C. §103(a) over Scata et al. and Prakken and USPN 5,503,388 to Guenther et al. Claim 29 was rejected under 35 U.S.C. §103(a) over Prakken, and Vander Syde et al. These rejections are respectfully traversed.

Rejection of Claims 1, 8, 26, 30 and 31 over Hendrickson and Prakken (as it relates to the independent claims)

Independent Claim 1

Independent claims 1 recites, in part,

... at least one pivoting mechanism pivotable between a loading position and an initial/final position, the at least one pivoting mechanism retains a container thereon ...

a diverting arm swingable between an open position and a closed position, in the open position, the diverting arm allowing product to enter the feeding area...

However, in Hendrickson, there is no pivoting mechanism. In fact, in Hendrickson, the containers are held on a platform which can only be indexed. In addition, as discussed with reference to FIG. 11, as the flats mail F leaves the staging tower section 16 of the flats bundle collator, it enters the containerizer section 18. Flats F are diverted into either of two output tubs 40-1 or 40-2. This diversion is achieved by movement of the pop-up conveyor sections 42-1 and 42-2 up or down in response to activation of fluid motors 44-1 or 44-2. This up or down movement of the conveyor section 42-1 or 42-2 permits the flats F to slide down one of the respective angular shoots 46-1 or 46-2, which communicate with the open sides of the mail tubs 40-1, 40-2. However, this pop up mechanism is not a diverting arm swingable between an open position and a closed position.

Prakken does not compensate for the deficiencies of Hendrickson. In Prakken, the carton loading station 14 is part of a carton conveyor 34 which brings in an empty carton 36 in its upright position with the top being open. The middle carton 38 is like carton 36, but has been pivoted and tilted upward towards pick-up station 12 with the open end adjacent and close to the row of

assembled pouches on the pick-up station. After the carton 38 has been filled, it is pivoted back to its upright position and conveyed further to the left to be in the position of carton 40 which shows the pouches after they have been packed into a vertical upright position. However, there is no disclosure, whatsoever, of a diverting mechanism, much less a diverting arm swingable between an open position and a closed position.

Independent Claim 26

The combination of references does not show all of the features of the claimed invention. For example, neither of the references specifically show a control operable for activating the container positioner to rotate the container from the horizontal configuration to the inclined configuration to permit product to drop in a substantially horizontal orientation into the container receptacle, and rotate the container to position each product from the horizontal orientation to the substantially vertical orientation. After careful review of the Prakken reference, there simply is no mention of a control for controlling the movement of the rotation of the container. Of course, these features would not be present in the Hendrickson reference since this reference, as admitted by the Examiner, does not show any rotation of the container.

Applicants also submit that there would be no motivation to combine the Prakken and Hendrickson references in order to achieve the claimed invention.

In Hendrickson, the containers are placed on a platform which is not rotated. The reason these containers are not rotated is that such a rotation would interfere with the chutes 46-1 and 46-2. Also, in the configuration of Hendrickson, in order to have the containers rotate, it would be necessary to reconfigure the entire container loading area including the belt system which increments the containers during the filling thereof. This would not have been obvious to one of skill in the art to reconfigure this entire system just so that the containers can rotate. In fact, Applicants submit that the Hendrickson reference works in its intended manner and there would be no reason to make such a modification.

Additionally, Applicants submit that one of skill in the art would not have looked to Prakken when attempting to modify the Hendrickson reference. Simply, Prakken is designed to load a carton with pouches. These pouches are flexible bag products; whereas, Hendrickson is designed specifically for mail pieces. As one can see from the respective figures, these two systems are vastly different, having only a common component of containers.

**Rejection of Claims 14-18 and 21-25 over Malow
and Hain (as it relates to the independent claims)**

Independent Claim 15

Independent claim 15 recites, in part,

at least one pivoting mechanism pivotable
between a first and second angled position;
at least one diverting mechanism ... including:
...
a swingable diverting arm configured to feed
the product to an ejection station comprising a pinch
belt configuration that allows injection of the product
into the container.

However, these features are not present in the Malow and Hain references

In Malow, there is no pinch belt configuration. In Malow, there is only a separating module 2. In the configuration shown in the figures, the separating module 2 appears to be two belts which are separated by a certain distance. Accordingly, these cannot be considered pinch belts. This much is admitted by the Examiner. As discussed above, Malow also does not show a swingable diverting arm. In Hain, although there appears to be a pinch belt, there is no swingable diverting mechanism which would feed product to the ejection station. Accordingly, the combination of references do not show all of the features of the claimed invention.

§103 Rejections Relating to Dependent Claims

Applicants submit that the dependent claims are allowable by virtue of being dependent from allowable base claims.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', with a stylized, looping flourish extending to the right.

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